

## **STITCHED WRITE HEAD WITH STAIRCASE P2 DEFINED THROAT HEIGHT**

### **ABSTRACT THE DISCLOSURE**

5        A method of making a magnetic write head assembly, which has a head surface  
and a track width, comprises the steps of forming a first pole piece layer of a first pole  
piece which has a pole tip portion, a back gap portion which is recessed from the head  
surface and a yoke portion which is located between the pole tip and back gap portions,  
forming an insulation stack with at least one coil layer embedded therein on the yoke  
10    portion of the first pole piece layer, forming a pedestal of the first pole piece on the pole  
tip portion of the first pole piece layer, forming a write gap layer on the pedestal, forming  
on a substantially planar surface a first component of a second pole piece on the write gap  
layer with the width at the head surface which is greater than the track width and with a  
throat height which extends from the head surface into the head assembly where the first  
15    and second pole pieces first commence to separate after the head surface, forming a  
second component of the second pole piece which has a track width on the first  
component and, with the second component employed as a mask, ion milling the first  
component to define the first component with the track width.